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Supplementary File

Enhanced Solubility and Bioavailability of Scutellarin via Amorphous Nanoparticles Stabilized with PVP

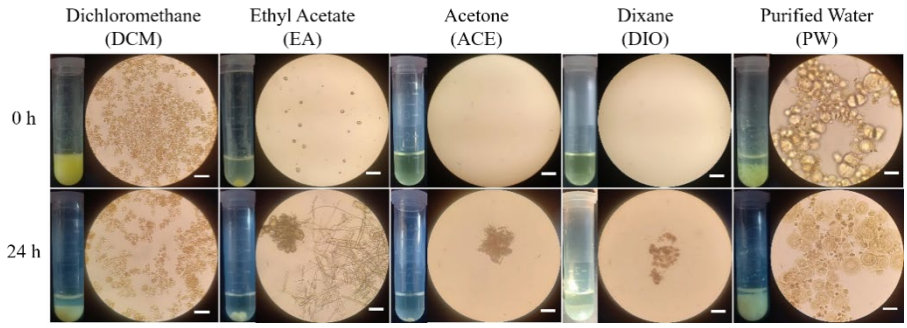


Figure S1. Appearance and micromorphology of SCU suspensions in single solvents without stabilizer (bar size 50 μm).

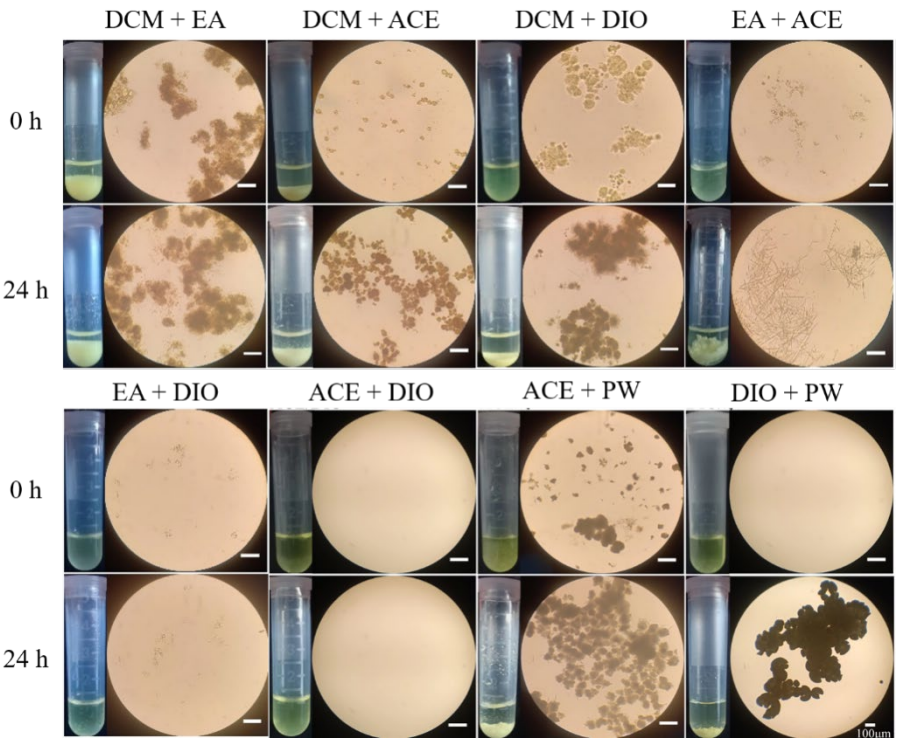


Figure S2. Appearance and micromorphology of SCU suspensions in mixed solvents without stabilizer (bar size 50 μm).

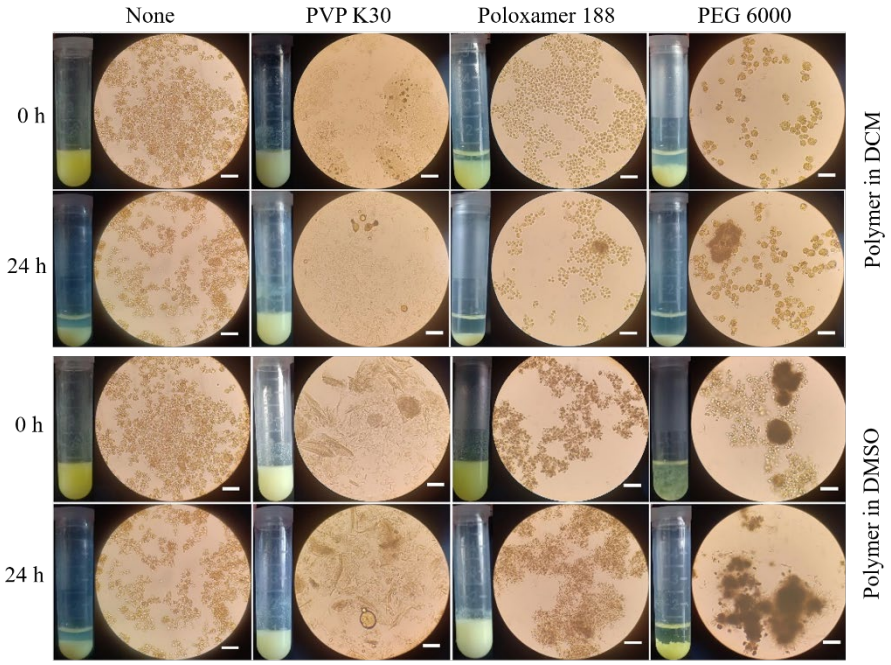


Figure S3. Appearance and micromorphology of SCU suspensions stabilized by different polymers in DCM or in DMSO (bar size 50 μm).

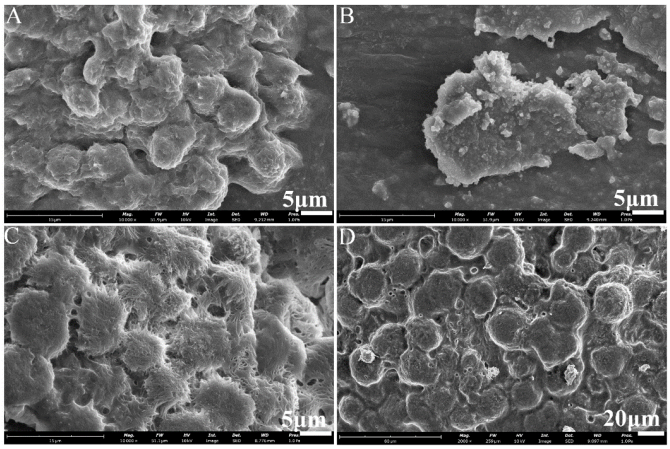


Figure S4. SEM images of the dried SCU suspensions stabilized by different polymers in DCM: (A) None; (B) PVP K30; (C) Poloxamer 188; (D) PEG 6000.

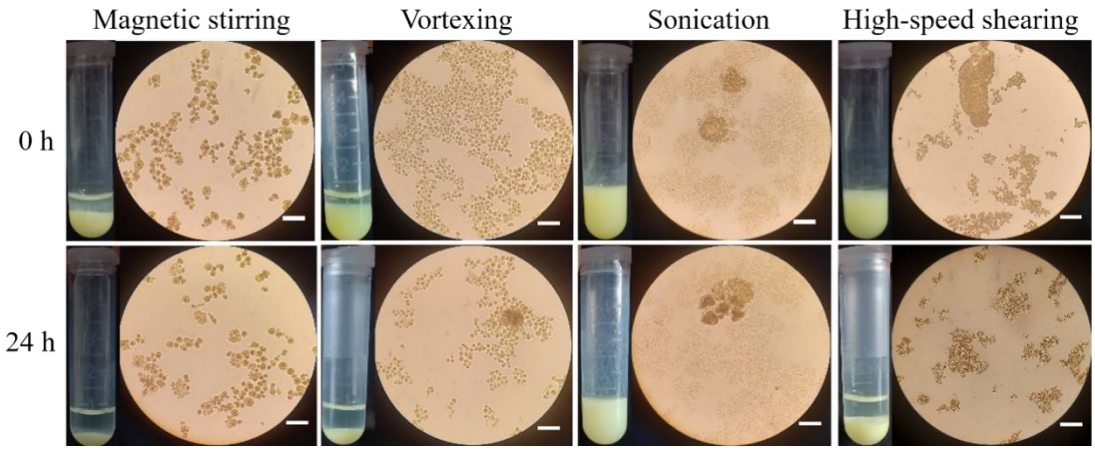


Figure S5. Appearance and micromorphology of SCU suspensions via different dispersing approaches (bar size 50 μm).

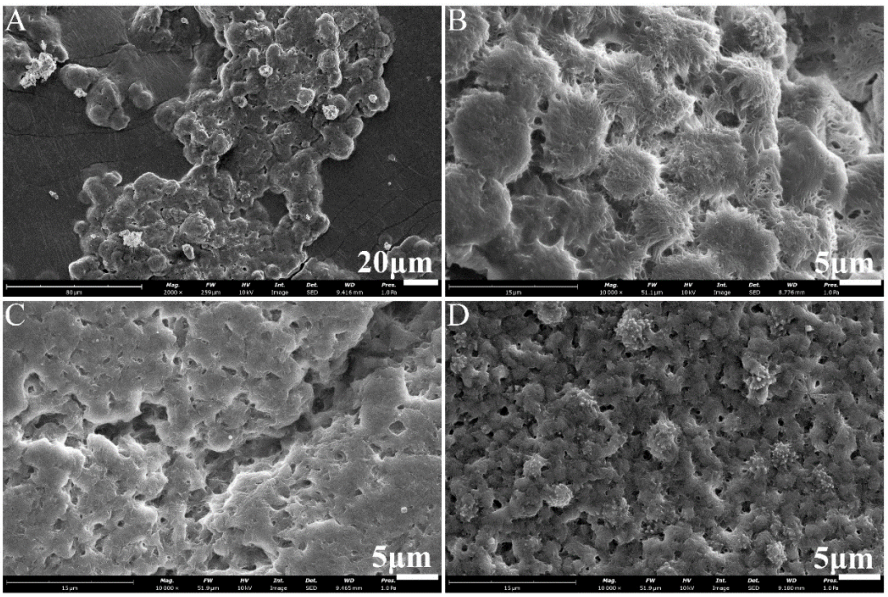


Figure S6. SEM images of the dried SCU suspensions via different dispersing approaches: (A) Magnetic stirring; (B) Vortexing; (C) Sonication; (D) High-speed shearing.

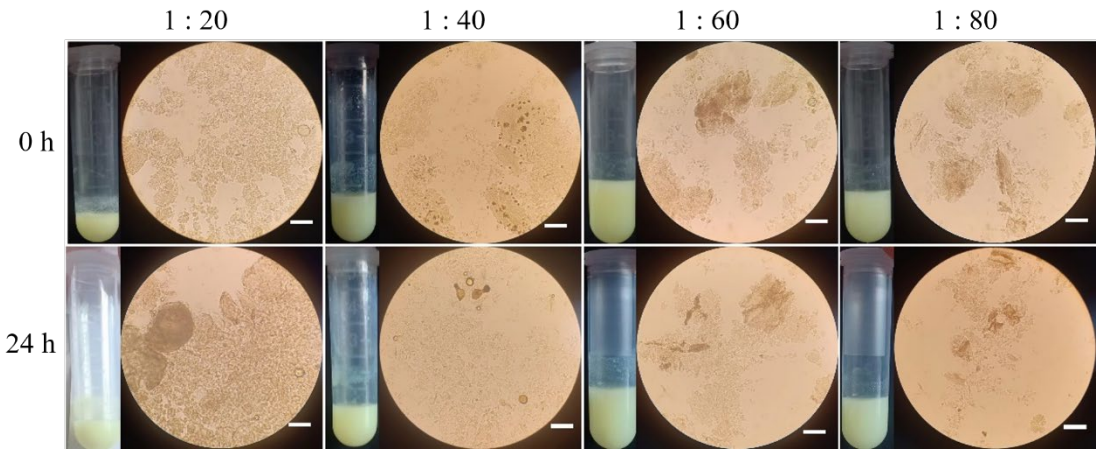


Figure S7. Appearance and micromorphology of SCU suspensions under various volumetric ratios of drug solution and DCM (bar size 50 μm).

Table S1. Particle size distribution of scutellarin nanoparticles. (Mean±SD, n=3)

Sample	Particle size, nm	PDI
Nanosuspension	149±3	0.037
Nanoparticles	712±76	0.120

Table S2. Similarity factor (f_2) values comparing the dissolution profiles of different formulations.

Comparison	Medium	f_2 Value	Interpretation
NPs vs. PM	Purified Water	29	Significantly different
NPs vs. PM	PBS pH 5.0	30	Significantly different
NPs vs. PM	PBS pH 6.8	70	Similar
NPs vs. PM	PBS pH 7.4	57	Similar
NPs vs. Pure SCU	All Media	30	Significantly different